

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	§	
Daniel E. Jenkins	§	
	§	Confirmation No.: 1696
Serial No. 10/764,627	§	
	§	Group Art Unit: 2836
Filed: January 26, 2004	§	
	§	Examiner: Parries, Dru M.
For: INFORMATION HANDLING	§	
SYSTEM INCLUDING ZERO	§	
VOLTAGE SWITCHING POWER	§	
SUPPLY	§	

PRE-APPEAL BRIEF REQUEST FOR REVIEW

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Commissioner For Patents
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Responsive to the Final Office Action dated October 20, 2008 and the Advisory Action, dated January 7, 2009 please consider the following remarks of the pre-appeal brief request for review. The claims pending and rejected are claims 1-3, 5-9, 11-15, 17-20 and 22-24. Review of the final rejection is requested for the following reasons.

THE REJECTION OF THE CLAIMS IS NOT SUPPORTED BY A *PRIMA FACIE* CASE OF OBVIOUSNESS

Claims 1-3, 5-9, 11-15, 17-20 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wittenbreder, Jr. (U.S. Patent No. 5,402,329) (Wittenbreder hereinafter), Gokhale et al (U.S. Patent Application Publication No. 2004/0046634) (Gokhale hereinafter), Clark et al (U.S. Patent Application Publication No. 2001/0013819) (Clark hereinafter) and Liu (U.S. Patent Application Publication No. 2005/0078440) (Liu hereinafter). This rejection is not applicable to the pending claims.

As the PTO recognizes in MPEP §2142:

The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the Examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

The USPTO clearly cannot establish a *prima facie* case of obviousness in connection with the pending claims for the following reasons:

35 U.S.C. §103(a) provides that:

[a] patent may not be obtained...if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.... (emphasis added)

Thus, when evaluating a claim for determining obviousness, all limitations of the claims must be evaluated. However, the references, alone, or in any combination, at least, do not teach or suggest all of the limitations of the claims as they are recited in the claims and defined throughout the specification and figures of the pending application.

For example, independent claim 19 relates to a zero voltage switching power supply and recites, "a load dependent inductor for storing energy, the load dependent inductor exhibiting an inductance which increases as current through the inductor decreases the load dependent inductor including an air gap defined by first and second non-parallel opposed surfaces; and first and second switches arranged in complementary configuration, the load dependent inductor being coupled to the first and second switches, the load independent inductor supplying energy to the first and second switches to achieve zero voltage switching of the first and second switches." Such elements are not recited, alone or in combination, in the cited references. Therefore, claim 19 and its dependent claims are submitted to be allowable.

Independent claims 1, 7, 13 and 24 recite elements similar to that of claim 19 and, as such, are submitted, along with their respective dependent claims, to be similarly allowable.

THE REJECTION IS NOT CLEARLY STATED

The rejection of the claims points to Clark for teaching "an inductor having a core with a non-constant air gap defined by first and second opposed surfaces, at least one of the opposed surfaces being inclined relative to the other of the opposed surfaces." See Office Action mailed April 30, 2008, page 3 and Office Action mailed October 20, 2008, pages 3-4. However, this language is not found in any of the pending claims. In responding to this the Advisory Action mailed January 7, 2009 states "[i]f 'one of the opposed surfaces (is) inclined relative to the other of the opposed surfaces' (rejection's language), then these are also 'first and second non-parallel opposed surfaces' (claimed language)." However, it is pointed out that the reverse may not be true. For example, opposing concave or convex surfaces are non-parallel, but are NOT "inclined relative to one another". Thus, this logic fails to prove equivalence in the two phrases.

MPEP 707.07(d) requires that "[w]here a claim is refused for any reason relating to the merits thereof it should be 'rejected' and the ground of rejection fully and clearly stated. . ."

However, a rejection citing language that is not in the claim and is not an equivalent is not clearly stated. Thus, this rejection is defective and should be withdrawn.

**A COMBINATION OF REFERENCES THAT CREATES AN INOPERABLE REFERENCE
TEACHES AWAY AND CANNOT SERVE AS A PRIMA FACIE CASE OF OBVIOUSNESS**

The combination of references in the rejection creates an inoperable reference and thus teaches away from the claims. When the rejection proposes a combination that makes a prior art reference inoperable for its intended purpose, the resulting inoperable prior art reference may be considered to teach away from the proposed combination, i.e., not to teach the combination, thereby supporting a showing of nonobviousness. See *in re* Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984) (finding no suggestion to modify a prior art device where the modification would render the device inoperable for its intended purpose). For example, the Federal Circuit has stated:

We have noted elsewhere, as a “useful general rule,” that references that teach away cannot serve to create a prima facie case of obviousness. . . . If references taken in combination would produce a “seemingly inoperative device,” we have held that such references teach away from the combination and thus cannot serve as predicates for prima facie case of obviousness.

McGinley v. Franklin Sports Inc., 262 F. 3d 1339, 60 USPQ2d 1001, 1010 (Fed. Cir. 2001); *In re* Sponnoble, 405 F.2d 578, 587, 160 USPQ 237, 244 (C.C.P.A. 1969) (references teach away from combination if combination produces seemingly inoperative device); *In re* Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984) (Inoperable modification teaches away). As discussed below, it is clear that a combination of the references are clearly inoperable for their intended purpose and thus teach away from the claimed embodiment.

It is also clear that the Clark, Wittenbreder, Gokhale and Liu references are not properly combinable because, if combined, at least one of their intended functions is destroyed. More particularly, if the choke of Clark were used in the converter of Wittenbreder as required by the rejection, it would be rendered inoperable for its intended purpose because the high currents of Clark would burn-up the switches and other circuitry of Wittenbreder. Thus, this modification of the Clark patent clearly destroys the purpose or function of the converter of Wittenbreder. One of ordinary skill in the art would not have found a reason to make the claimed modification. Thus, for this mutually exclusive reason, the USPTO's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103(a) should be withdrawn.

CLARK SPECIFICALLY TEACHES AWAY FROM THE CLAIMS

The output choke for a D.C. welder of Clark is clearly distinguishable from the load dependent inductor of the pending claims. Specifically, the pending claims relate to a zero voltage switching power supply, information handling systems including the power supply and methods operating the power supply, which operate an inductor at **low currents**. To the contrary, Clark teaches an output choke for a D.C. welder and method of using the same using an inductor for **very high currents**.

In the present application, an inductor “may also be referred to as a swinging choke herein and the gap may also be referred to as a load dependent gap.” Present application, paragraph [0025]. To the contrary, Clark actually **teaches away** from using a “swinging choke” by reciting that a

swinging choke was not the solution because the weld current varied too much to operate on the saturation knee. In addition, such **swinging chokes were for small current applications**

Clark, paragraph [0002]. Emphasis added. Furthermore, **Clark specifically distinguishes itself from the subject matter of the pending claims** (e.g., being used in a power supply, as recited in the pending claims) by stating

The present invention relates to **an arc welder which requires a relatively large output choke**. This field is **distinguished from power supplies used for low power appliances**, such as lights, sound or video equipment. **Such miniature power supplies do not have the large currents or the large range of currents needed for arc welding**. An arc welder involves currents **exceeding 50 amperes**. Indeed, **the choke of the present invention is a choke that can handle currents of 100-500 amperes** while still maintaining an unsaturated core. **The invention handles at least about 100 amperes. THIS CLEARLY DISTINGUISHES THE OUTPUT CHOKE OF THE PRESENT INVENTION FROM OTHER INDUCTORS USED IN POWER SUPPLIES.**

Clark, paragraph [0007]. Emphasis added. Thus, it is clear that Clark specifically teaches away from using any of the choke inductors of Clark in a power supply.

The Advisory Action mailed January 7, 2009 responds by stating on page 2 that

the Clark reference is not the main reference so the details of setting of Clark’s invention **aren’t taken into deep consideration**. Also, the only teaching taken from Clark is the shape of an air gap of a core of an inductor, nothing about the level of current flowing through the inductor in Clark’s invention’s setting. So, the fact that Clark teaches a setting of very high current is **irrelevant to the combination and to the final combined invention**, since the setting is taught in the main reference (i.e., Wittenbreder). (Emphasis added).

However, the Federal Circuit has clearly indicated that a reference that "criticize[s], discredit[s], or otherwise discourage[s] the solution" teaches away and thus fails to show a *prima facie* case of obviousness. See *In re Fulton*, 391 F.3d 1195, 73 USPQ 2d 1141 at 1145-46 (Fed. Cir 2004). It is clear that Clark is criticizing, discrediting or otherwise discouraging using the swinging choke of the pending claims in a welder of Clark and Clark is criticizing, discrediting or otherwise discouraging using the inductor of Clark in a power supply with a small current.

Because, as shown above, it is well recognized that teaching away from the claimed invention is a *per se* demonstration of lack of *prima facie* obviousness, it is clear that the USPTO has not borne the initial burden of factually supporting any *prima facie* conclusion of obviousness. Thus, for this reason alone, the USPTO's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103(a) should be withdrawn.

In view of all of the above, it is impossible to render the subject matter of the claims as a whole obvious based on a single reference or any combination of the references, and the above explicit terms of the statute cannot be met. As a result, the USPTO's burden of factually supporting a *prima facie* case of obviousness clearly cannot be met with respect to the claims, and a rejection under 35 U.S.C. §103(a) is not applicable.

Therefore, independent claims 1, 7, 13, 19 and 24 and their respective dependent claims are submitted to be allowable.

Other reasons for the patentability of claims 1-3, 5-9, 11-15, 17-20 and 22-24 have been previously presented and will be maintained should the filing of an appeal brief become necessary.

Respectfully submitted,



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